# IMPORTANT INSTRUCTIONS - OPERATING MANUAL

**Model: NXBV70**

nuVent®

**Bulb Heat Lamp with Fan**

## READ AND SAVE THESE INSTRUCTIONS

READ CAREFULLY BEFORE ATTEMPTING TO ASSEMBLE, INSTALL, OPERATE OR MAINTAIN THE PRODUCT DESCRIBED. PROTECT YOURSELF AND OTHERS BY OBSERVING ALL SAFETY INFORMATION. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE!

### RETAIN INSTRUCTIONS FOR FUTURE REFERENCE.

## GENERAL SAFETY INFORMATION

**When using electrical appliances, basic precautions should always be followed to reduce the risk of fire, electric shock and injury to person, including the following:**

**WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND INJURY TO PERSON, OBSERVE THE FOLLOWING:**

a) Use this unit only in the manner intended by the manufacturer.If you have questions, contact the manufacturer.

b) Before servicing or cleaning the unit, switch power off at service panel and lock the service disconnecting means to prevent power from being switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device, such as a tag, to the service panel.

**WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK AND INJURY TO PERSON, OBSERVE THE FOLLOWING:**

a) Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-related construction.

b) Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent back drafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA) and the American Society for Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), and the local code authorities.

c) When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.

**CAUTION: FOR GENERAL VENTILATING USE ONLY. DO NOT USE TO EXHAUST HAZARDOUS OR EXPLOSIVE MATERIALS AND VAPORS.**

d) Ducted fans must always be vented to the outdoors.

e) This unit must be grounded.

f) To avoid motor bearing damage and noisy and/or unbalanced impellers, keep drywall spray, construction dust, etc. off power unit.

g) Read all instructions before installing or using exhaust fan.

**WARNING: TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, DO NOT USE THIS FAN WITH ANY SOLID-STATE SPEED CONTROL DEVICE.**

**WARNING: DO NOT INSTALL OVER A TUB OR MOUNT IN A SHOWER STALL ENCLOSURE.**

a) Do not install into a ceiling thermally insulated to a value greater than R-40.

b) NEVER place a switch where it can be reached from a tub or shower.

**WARNING: DO NOT USE IN KITCHENS.**

**WARNING: THIS UNIT IS DESIGNED AND TESTED TO BE A SUPPLEMENTAL HEATER FOR USE WITH A TIMER OR A SWITCH. IT IS NOT INTENDED TO BE USED AS THE PRIMARY SOURCE OF HEAT AND CONTROLLED BY A THERMOSTAT.**

## SAVE THESE INSTRUCTIONS

# INSTALLATION INSTRUCTIONS

**CAUTION: MAKE SURE POWER IS SWITCHED OFF AT SERVICE PANEL BEFORE STARTING INSTALLATION.**

## SECTION 1

**Preparing the Exhaust Fan**

1. Unpack fan from the carton and confirm that all pieces are present. In addition to the exhaust fan you should have:
   - 1 - Grill
   - 1 - Damper Assembly (attached)
   - 4 - Mounting Rails
   - 1 - Instruction/Safety Sheet _
2. Remove the wire compartment cover by loosening the two screws holding the cover in place **(Figure 1).**

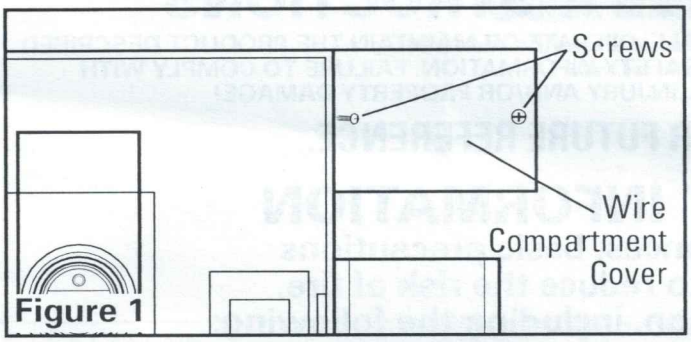


Figure 1

3. Choose the location for your fan. To ensure the best air and sound performance, it is recommended that the length of ducting and the number of elbows be kept to a minimum, and that insulated hard ducting be used. Larger duct sizes will reduce noise and airflow restrictions. This fan will require at least 8" of clearance in the ceiling or wall, and will mount through drywall up to 3/4" thick. The fan mounts between 16" on center joists using the provided mounting rails.
3. Select the most convenient electrical knockout and remove using a straight-blade screw driver **(Figure 2).**

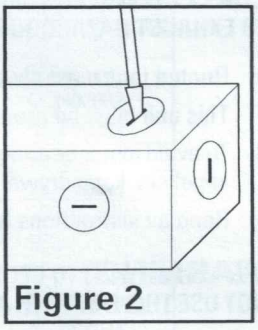


Figure 2

## SECTION 2

**New Construction**

1. Install the rails on the housing and position the housing next to the joist. Line up housing so that it will be flush with the finished ceiling. Secure the ends of the rails with screws or nails (not included) to the joists and slide the housing into the final position **(Figure 3).**

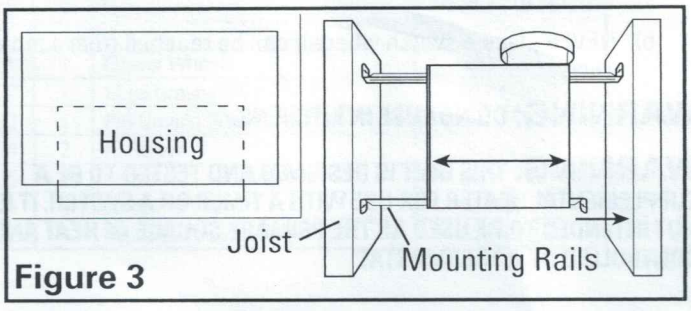


Figure 3

## SECTION 3

**Existing Construction**

1. Set housing in position between the joist and trace an outline onto the ceiling material **(Figure 4)**. Set housing aside and cut opening, being careful not to cut or damage any electrical or other hidden utilities. Install the rails on the housing and position the housing in the previously cut hole so that it is flush with the finished ceiling. Secure the ends of the rails to the joists **(Figure 3).**

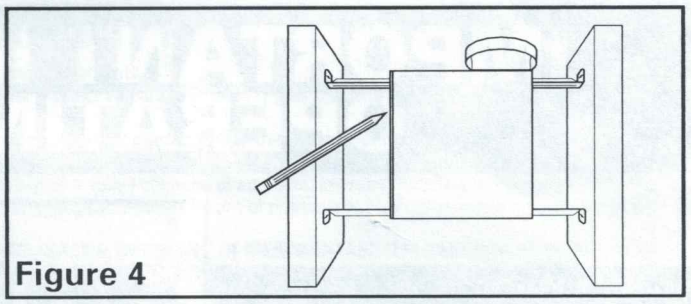


Figure 4

## SECTION 4

**Ducting**

**CAUTION: ALL DUCTING MUST COMPLY WITH LOCAL AND NATIONAL BUILDING CODES.**

1. Remove any tape that might be holding the damper in place during shipping and connect the ducting to the fan's duct collar **(Figure 5).** Secure in place using tape or screw clamp. Always duct the fan to the outside through a wall or roof cap.

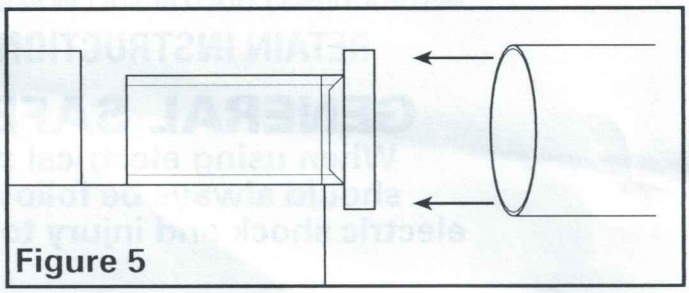


Figure 5

## SECTION 5

**Wiring**

**CAUTION: MAKE SURE POWER IS SWITCHED OFF AT SERVICE PANEL BEFORE STARTING INSTALLATION.**

**CAUTION: ALL ELECTRICAL CONNECTIONS MUST BE MADE IN ACCORDANCE WITH LOCAL CODES, ORDINANCES, OR NATIONAL ELECTRICAL CODE. IF YOU ARE UNFAMILIAR WITH METHODS OF INSTALLING ELECTRICAL WIRING, SECURE THE SERVICES OF A QUALIFIED ELECTRICIAN.**

**NOTE:** This unit includes a side access panel for wiring that does not require the removal of the fan's blower assembly. If you choose to wire the unit from the inside, you will need to remove the blower assembly and internal wiring compartment. Both methods are equally effective.

1a. **Wiring Fan/Heat Bulb(s) Independently:** Run wiring from an approved wall switch carrying the appropriate rating. One neutral (white), one ground (green or bare copper), and two hot (black and blue). Secure the electrical wires to the housing with an approved electrical connector. Make sure you leave enough wiring in the box to make the connection to the fan's receptacle.

1b. From where you have access to inside the fan's junction box, connect the white wire from the house to the white wire from the fan. Connect one hot (black) wire from the house to the black wire from the fan (this is the fan control). Connect the second hot (blue) wire from the house to the blue wire from the fan (this is the heat bulb control). Connect the ground wire from the house to the green wire from the fan **(Figure 6).** Use approved methods for all connections.

**NOTE:** On model AK927 connect the Hot (Blue) wire from the house to the two Blue wires from the unit.

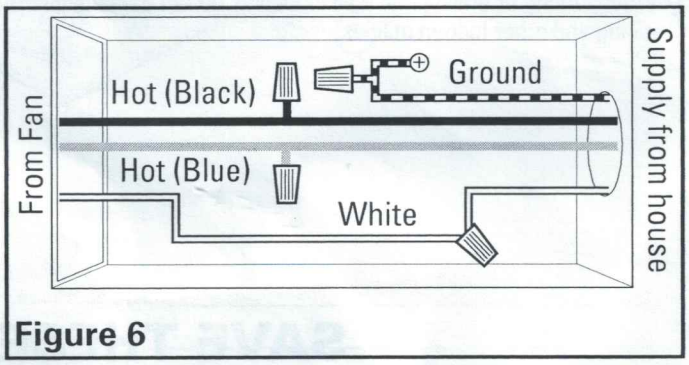


Figure 6

2. **Wiring Fan/Heat Bulb together:** Run wiring from an approved wall switch carrying the appropriate rating. One neutral (white), one ground (green or bare copper), and one hot (black). Secure the electrical wires to the housing with an approved electrical connector. Make sure you leave enough wiring in the box to make the connection to the fan's receptacle.

2a. From where you have access to inside the fan's junction box, connect the one white wire from the house to the white wire from the fan. Connect the black wire from the house to both the black and blue wires from the fan. Connect the ground wire from the house to the green wire from the fan **(Figure 7).** Use approved methods for all connections.

**NOTE:** On model AK927 connect the hot (black) wire from the house to the black and two blue wires from the unit.

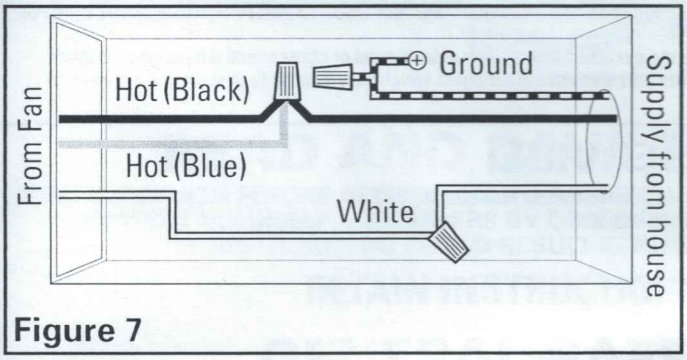


**Figure 7**

3. Reinstall the wire compartment cover using the two screws removed in **Step 2** of **SECTION 1** *Preparing the Unit.* Make sure all wires are tucked inside of the compartment and are not being pinched or showing through.

# SECTION 6
**Completing the Installation**

1. Insert plug from fan into the receptacle located under the light socket **(Figure 8).**

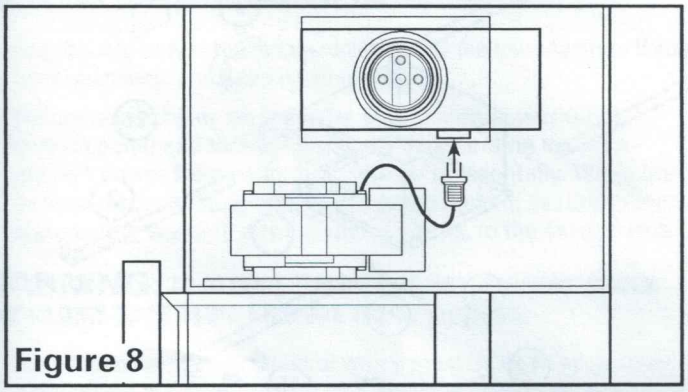


**Figure 8**

2. Remove grill from carton and attach springs from grill to posts on either side of housing **(Figure 9).**

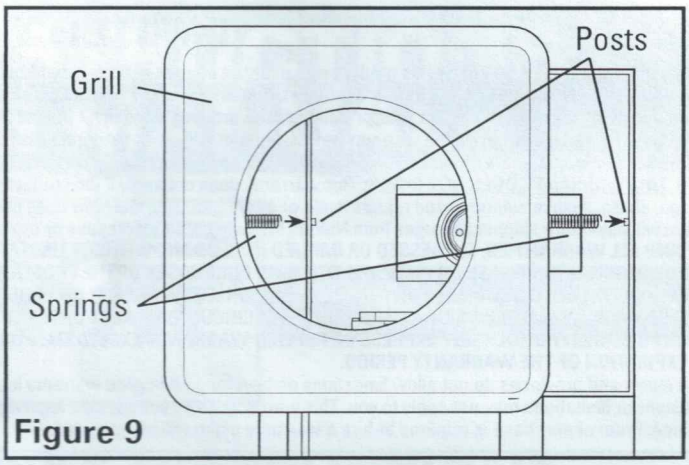


**Figure 9**

3. Install a 250 watt maximum, R-40 Type A heat lamp (not included) into the socket and center the grill around the lamp.

**NOTE:** Model AK927 uses 2 - 250 watt maximum R-40, Type A heat lamps.

4. Restore power and test your installation.

# SECTION 7
**Use and Care**

**CAUTION: MAKE SURE POWER IS SWITCHED OFF AT SERVICE PANEL BEFORE STARTING INSTALLATION.**

**CAUTION: ALLOW LAMP(S) TO COOL BEFORE CLEANING THE UNIT OR REPLACING THE LAMPS.**

**NOTE:** On installations where the ventilation fan and heat lamps are controlled independently: After extended use of the heat lamps without the ventilation fan operating, temperature sensing devices inside the unit may engage the ventilation fan for a time to maintain conditions inside of the unit enclosure. Once conditions inside of the unit enclosure are similar to room ambient conditions, the fan will disengage. This fan cycling will repeat as needed.

1. **Cleaning the Grill:** Remove heat lamp(s) and detach grill springs from posts to release grill from housing. Use a mild detergent, such as dishwashing liquid, and dry with a soft cloth. NEVER USE ANY ABRASIVE PADS OR SCOURING POWDERS. Completely dry grill before reinstalling. Refer to instructions in **Section 6** *Completing the Installation,* to reinstall grill.
2. **Cleaning the Fan Assembly:** Wipe all parts with a dry cloth or gently vacuum the fan. NEVER IMMERSE ELECTRICAL PARTS IN WATER.

**CAUTION: ALLOW LAMP(S) TO COOL BEFORE CLEANING THE UNIT OR REPLACING THE LAMPS.**

3. **Changing the Heat Lamps:** Disconnect power to the unit. Unscrew heat lamp(s) from lamp holder and replace with 250 watt maximum, R-40, type A heat lamp.

## Troubleshooting Guide

| Trouble | Probable Cause | Suggested Remedy |
|---|---|---|
| 1. Fan does not operate when the switch is on. | 1a. A fuse may be blown or a circuit tripped. | 1a. Replace fuse or reset circuit breaker. |
| | 1b. Connector plug from motor is not plugged in. | 1b. Turn off power to unit. Remove Grill and plug motor into receptacle in housing. Restore power to unit. |
| | 1c. Wiring is not connected properly. | 1c. Turn off power to unit. Check that all wires are connected. |
| | 1d. Motor has stopped operating. | 1d. Replace motor. |
| 2. Fan is operating, but air moves slower than normal. | 2. Obstruction in the exhaust ducting. | 2. Check for any obstructions in the ducting. The most common are bird nests in the roof cap or wall cap where the fan exhausts to the outside. |
| 3. Fan is operating louder than normal. | 3a. Motor is loose. | 3a. Turn off power to unit. Remove grill and check that all screws are fully tightened. Restore power to unit. |
| | 3b. Fan blade is hitting housing of unit. | 3b. Call your dealer for service. |

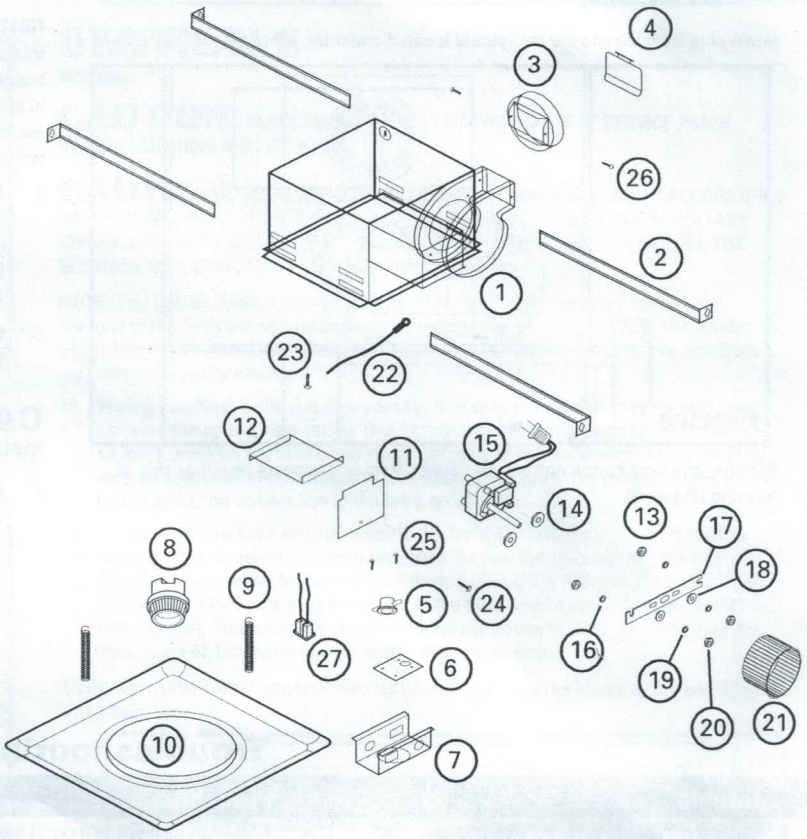
# LIMITED WARRANTY

**WHAT THIS WARRANTY COVERS:** This product is warranted against defects in workmanship and/or materials.
**HOW LONG THIS WARRANTY LASTS:** This warranty extends only to the original purchaser of the product and lasts for one (1) year from the date of original purchase or until the original purchaser of the product sells or transfers the product, whichever first occurs.
**WHAT NUVENT WILL DO:** During the warranty period, NuVent will, at its sole option, repair or replace any part or parts that prove to be defective or replace the whole product with the same or comparable model.
**WHAT THIS WARRANTY DOES NOT COVER:** This warranty does not apply if the product was damaged or failed because of accident, improper handling or operation, shipping damage, abuse, misuse, unauthorized repairs made or attempted. This warranty does not cover shipping costs for the return of products to NuVent for repair or replacement. NuVent will pay return shipping charges from NuVent following warranty repairs or replacement
**ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED (INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTY OF MERCHANTABILITY), LAST ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE OR UNTIL THE ORIGINAL PURCHASER OF THE PRODUCT SELLS OR TRANSFERS THE PRODUCT, WHICHEVER FIRST OCCURS AND IN NO EVENT SHALL NUVENT'S LIABILITY UNDER ANY EXPRESS OR IMPLIED WARRANTY INCLUDE (I) INCIDENTAL OR CONSEQUENTIAL DAMAGES FROM ANY CAUSE WHATSOEVER, OR (II) REPLACMENT OR REPAIR OF ANY HOUSE FUSES, CIRCUIT BREAKERS OR RECEPTACLES. NOTWITHSTANDING ANYTHING TO THE CONTRARY, IN NO EVENT SHALL NUVENT'S LIABILITY UNDER ANY EXPRESS OR IMPLIED WARRANTY EXCEED THE PURCHASE PRICE OF THE PRODUCT AND ANY SUCH LIABILITY SHALL TERMINATE UPON THE EXPIRATION OF THE WARRANTY PERIOD.**
Some states and provinces do not allow limitations on how long an implied warranty lasts, or the exclusion or limitation of incidental or consequential damages, so these exclusions or limitations may not apply to you. This warranty gives you specific legal rights. You may also have other rights which vary from state to state and province to province. Proof of purchase is required before a warranty claim will be accepted.

# CUSTOMER SERVICE:

**For warranty service or information, please visit the NuVent web site at www.bvc.com or call 1-800-433-1626.**

| # | Qty. | Description | Replacement Part # |
|---|---|---|---|
| 1 | 1 | Fan Housing | 5S3402080 |
| 2 | 4 | Mounting Rails | 5S1299002 |
| 3 | 1 | Collar | 5S3402041 |
| 4 | 1 | Damper | 5S3402042 |
| 5 | 1 | Overheat Protector | 5S3402081 |
| 6 | 1 | Mounting Plate Over Heat | 5S3402082 |
| 7 | 1* | Mounting Plate Lamp Holder | 5S3402083 |
| 8 | 1* | Lamp Holder | 5S3402084 |
| 9 | 2 | Grill Springs | 5S3402085 |
| 10 | 1 | Grill | 5S3402086 |
| 11 | 1 | Internal Wire Cover | 5S3402087 |
| 12 | 1 | External Wire Cover | 5S3402088 |
| 13 | 2 | Nut | 5S3402045 |
| 14 | 2 | Spacer | 5S3402044 |
| 15 | 1 | Motor | 5S3402043 |
| 16 | 2 | Lockwasher | 5S3402046 |
| 17 | 1 | Motor Bracket | 5S3402047 |
| 18 | 2 | Washer | 5S3402048 |
| 19 | 2 | Lockwasher | 5S3402049 |
| 20 | 2 | Hex Nut | 5S3402050 |
| 21 | 1 | Blower Wheel | 5S3402051 |
| 22 | 1 | 14 ga Ground Wire | 5S1999003 |
| 23 | 1 | #10 Ground Screw | 5S1999002 |
| 24 | 2 | #8 Screw | 5S1999004 |
| 25 | 2 | Screw | 5S3402064 |
| 26 | 2 | Screw - Collar | 5S3402040 |
| 27 | 1 | Polarized Receptacle | 5S3402089 |




Installer:_____ Installation Date:_____

Place of Purchase:_____ Model Number:_____